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An Armory for State Militia

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AN ARMORY FOR STATE MILITIA

BY

EUGENE HARRIS McFARLAND

T H E S I S

FOR THE

DEGREE OF BACHELOR OF SCIENCE

IN

ARCHITECTURE

COLLEGE OF ENGINEERING

UNIVERSITY OF ILLINOIS

1912

UNIVERSITY OF ILLINOIS

JUNE 1st 1912.

THIS IS TO CERTIFY THAT THE THESIS PREPARED UNDER MY SUPERVISION BY

EUGENE HARRIS MCFARLAND

ENTITLED AN ARMOY FOR STATE MILITIA

IS APPROVED BY ME AS FULFILLING THIS PART OF THE REQUIREMENTS FOR THE

DEGREE OF

David Varon

Instructor in Charge

APPROVED:

Frederick W. Mann

HEAD OF DEPARTMENT OF

Architecture

226384

AN ARMORY FOR STATE MILITIA.

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AN ARMORY FOR STATE MILITIA.

HISTORY.

The armory is purely an American Institution, that is speaking of it in its modern American sense. Very little can be learned of its history other than that it is an evolution from the earlier fortresses.

The American Encyclopedia says that an armory is a building, a military station appropriated to the storage of arms, or the use of the troops. Thru-out America the term is generally applied to the headquarters of the local militia, and signifies almost the equivalent of a club house, to which is added a drill shed for military manoeuvres.

This latter use of the word is the one which interests me in the solution of my problem.

The armory is in fact a very recent development and does combine uses often far removed from the military one. For instance because of the great area of the drill sheds they are often used for large conventions, athletic carnivals, dances, horse shows, etc. It is proposed to take these various ones into account in the design, therefore arrangements for spectators is absolutely necessary. Armories are of several classes; those for infantry, or for cavalry, or for artillery. Still another division can be made into company armories, battallion armories and regimental armories.

All of the large American cities have regimental armories for their infantry and quite a few have battallion or troop armories

for their artillery a cavalry. Almost every large town in the country has its armory to which it points with pride and in which, their various dances, meetings etc. take place. Often the Armory must serve for a Theatre or a roller skating rink.

PROGRAM OF REGIMENTS.

This thesis is intended to be the design of a large armory adopted to the user of a squadron of cavalry. The armory is situated in a large American city and is for the use of its militia or state troop.

The squadron in question is supposed to be magnificently endowed, consequently every effort is put forth, not only in making the armory a handsome edifice, but to make the organization a crack organization of its kind. Therefore conservatism is the rule in the number of the troop.

The squadron is composed of two troops of forty (40) privates and non-commissioned officers each. This is quite a usual size and is about the limit of the number of troop that can be taken care of in one armory seeing that the horses and all are to be taken into account.

The site of the armory is to be near the center of a large and beautiful park, thereby giving room for considerable formal gardening and designing. The building may face any way, preferably south an entrance may be had from any or all directions.

The most important feature of the armory is the drill hall which must have a floor area of at least thirty-two thousand (32,000) square feet. Surrounding this hall and at a minimum height of twelve (12) feet is to be a gallery for spectators. In these galleries seating for one thousand (1,000) people must be provided. The floor of the armory is to be made up after the style of arenas in Exhibition Amphitheater (tan bark)

Near the main entrance, which entrance is on a level with the drill hall floor, are the major's offices, the captains offices (2), the surgeons offices, reception rooms or trophy galleries, a ladies8 retiring room with necessary toilets, lavatories ets. These may be either on the first or second floor, or part or each floor, except the reception rooms and the officers offices.

Near the rear entrance, which is on a level with the drill hall floor, are the quarter masters department, Farrier shop, saddle rooms, fodder and grain room.

In close connection to the drill hall are to be the stabling for the one hundred (100) horses. It is desirable to have the horses of each troop separated from those of the other troops. Between the stabling and the drill hall is to be a mounting corridor a room, opening directly into the drill hall.

In the basement space must be provided for a rifle range, a pistol range, magazines, quartermaster stores, locker rooms for both troops and a swimming pool.

In the second floor, space must be provided for meeting rooms, a library, a small gymnasium, non-commissioned officers rooms; also corridors leading to balconies surrounding drill hall.

SOLUTION.

The requirements for this armory are not very specific nor difficult, giving thereby quite a range for the producing of a beautiful and useful design. No limit need be encountered in the way of money, consequently a great range can be had in the way of decoration and space.

The design should be imposing and the entrances large, but well protected and few in number. This problem finds almost an immediate solution in the old medieval fortresses and one that is extremely simple. It has been my endeavor to use a different style and still retain the formidable; military effect. Personally I do not feel that ornament, which is consisted with the design and use of the building, is out of place, so it seems to me that resort may be had to the classical in the solution of the problem. The winning design for the National Guard Armory in the city of Washington made are of the Greek doric order and while it is criticised by many, is to many others quite a handsome solution of the problem.

The character of the building is one of the most important considerations in the design and will be considered here. Character is indicated in the ornament and the proportion of the parts as well as in the general effect and in the outline. The ornament used is intended to suggest strength if not of a military nature. However, nearly all the added ornament suggests the nature of the building.

The groups figures over each end mass are intended to represent or be symbolical of war. The ball rod shield motif used

on the side are a usual decoration in armories and buildings of that type. The freeze running around the base, represents the various departments of the military eras in history. The scale of the drawing permits no more than a suggestion as to the meaning of the various decorations used. The squad eagle has been used on the main center mass and is quite in keeping with the design. Flags and shields have been used under the second floor windows and else where on the design.

The covering of the drill hall is supported by four large trusses and on the elevations this covering is quite prominent as befits the most important feature of the building. The use of ornament on the Drill hall covering has been omitted because of its immense scale. The covering itself suggests enough without superfluous amount. The inside has been decorated with bands and moulds which it is hoped are characteristic. Panels and plaques have been resorted too, in places. Light to the drill hall is secured thru large windows on each side and a sky-light over the top.

The walls have been made extremely thick to represent solidity and formidability and the use of vaulting and pilasters has been very great. The vaulting suggests strength that cannot be suggested by flat ceilings. The walls are thicker to the fore of the building, indicating immediately its greater importance. It will be seen in a glance at the drawing that windows are extremely few on the main floor and comparatively so on the second which is partly lighted by sky-light.

In planning the building the user of the various parts were taken carefully into account. It was seen immediately for

very obvious reasons that the horses must be in some way completely segregated from the main portion of the building in which the people must sit and move around considerably. The solution arrived at seems to separate the horses and their appurtenances very well from the rest of the building and at the same time separate the horses of one troop from those of the other. One of the important features of the building is well taken care of in this design, is that of the mounting corridor. This corridor is a three aisle vaulted affair running from between the stabling directly to the drill hall. The troop is mounted in the center aisle and passage is left for people on foot in either aisle to the side. It is supposed that a whole troop is mounted in this corridor at one time and entrance can be made into the drill in perfect order. The saddle and feed rooms are partly in the end pavilions and partly above the mounting corridor. The farrier shops are in the main building and to the sides of the mounting corridor and opening only from it. The mounting corridor has also direct connection to the outside of the building thru doors large enough to permit four horses to walk out abreast. Each stall in the stabling is full size namely five (5) by nine (9) and the floor is on a level with the drill hall floor, tho it is tiled or concreted and the drill hall floor and mounting corridor floor are made of tan-bark. There is room for fifty (50) horses in each troop, which gives extra stalls for second charges for officers, and for crack exhibition horses.

The main entrance is under a medium sized dome running thru two stories, giving the entrance vestibule quite a dignified

and important treatment. The vestibule opens directly into the drill hall and the doors and arches are of such a width that a troop can march out four horses abreast.

To the side of the vestibule are openings into the main passage a corridor, which entirely surrounds the drill hall, and into the great trophy and reception room. On one side of the reception room are several offices, and at the end is a hall into which a stairs lands, and from which a second or side entrance opens. There are two sets of reception rooms, offices and stair halls: One for each troop. To the side of the stair hall are retiring rooms, one for men and one for women.

At the rear of the building and on the ground floor are two sets of stairs and meeting rooms, a quartermaster's office and a farrier shop. Only the first floor plan is shown but the second floor solution is seen almost immediately from the first.

As mentioned before the drill hall is entirely surrounded by a corridor from which it is entered thru innumerable openings on all sides. Spectators may stand in these corridors as well as sit in the galleries and they afford a perfect means of communication to all parts of the building at all times. A man may enter the front vestibule and pass clear thru to the stabling without once going thru a room, or the drill hall and mounting corridor. This seems to me to be a very useful and important feature of my design. Thruout the whole design good communication has been worked for consequently the building is remarkably open inside.

EXAMPLES

Modern American examples of the large type are quite numerous but not very remarkable as to quality of design. Among the larger armories are the 71st Regiment, the 69th Regiment of New York. These are immense buildings with innumerable rooms and uses.

A very excellent armory of the "Fortress Type" is the armory at the State University of Columbus, Ohio. Another and larger armory of this type is the 65th Regiment Armory of Buffalo. All of the foregoing Armories support towers of large size but of doubtful use.

The 5th Regiment Armory of Baltimore is a useful and simple type in which the various meeting rooms, offices, locker rooms, gymnasiums surround entirely the drill shed. Small triangular projections along the sides are used for rifle men in case of seige.

One can go on indefinitely naming and describing the various armories of the infantry type. All have much in common both as to plan and to elevation.

However, armories for use of cavalry and artillery battalions and regiments are few and far between. One of the former types is represented by the armory for "Troop C" Brooklyn, New York. This is an immense building with stabling for (130) one hundred thirty horses. The space for meeting rooms, rifle ranges, locker rooms, etc. is relatively small because the armory is for the use of a single troop.

The Naval Battalion" Armory in Brooklyn represents its type and differs very little from the Infantry type.

The Artillery type is ably represented by the Armory for the Second Battery, Franklin Ave., New York. Of all the existing armories I think this is the best both in character and plan.

The stabling here is in the basement and the gun room is below the drill hall. The building is in Gothic, which style seems to me to be the most logical and valuable for use in armories.

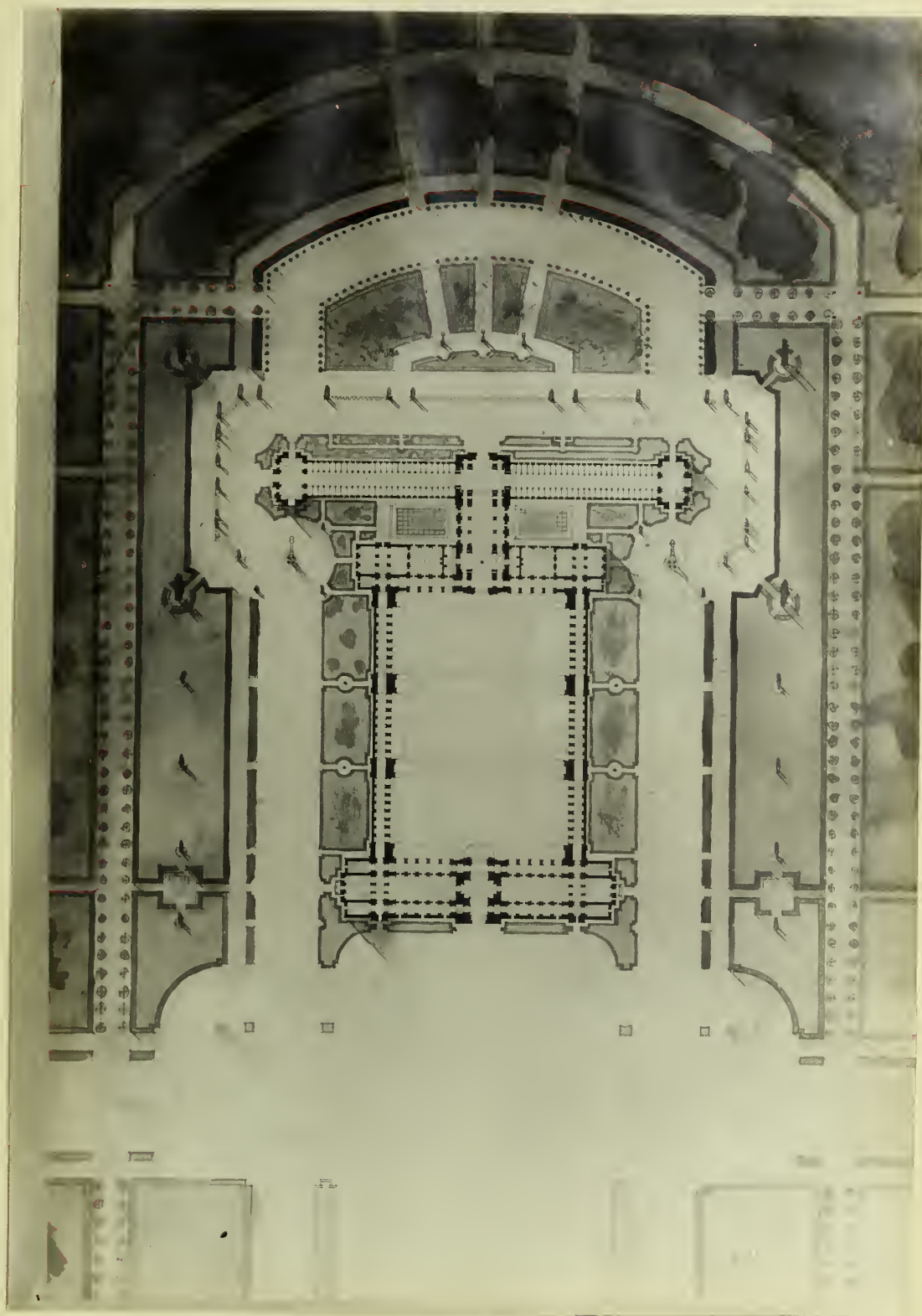
A careful study of the afore mentioned buildings shows that there is little difference in the various types. Each has much in common with the others. The use, of course, determines the difference, as does also the size of the body that occupies the armory and the wealth of the corporation or municipality that builds and operates it.

REFERENCES.

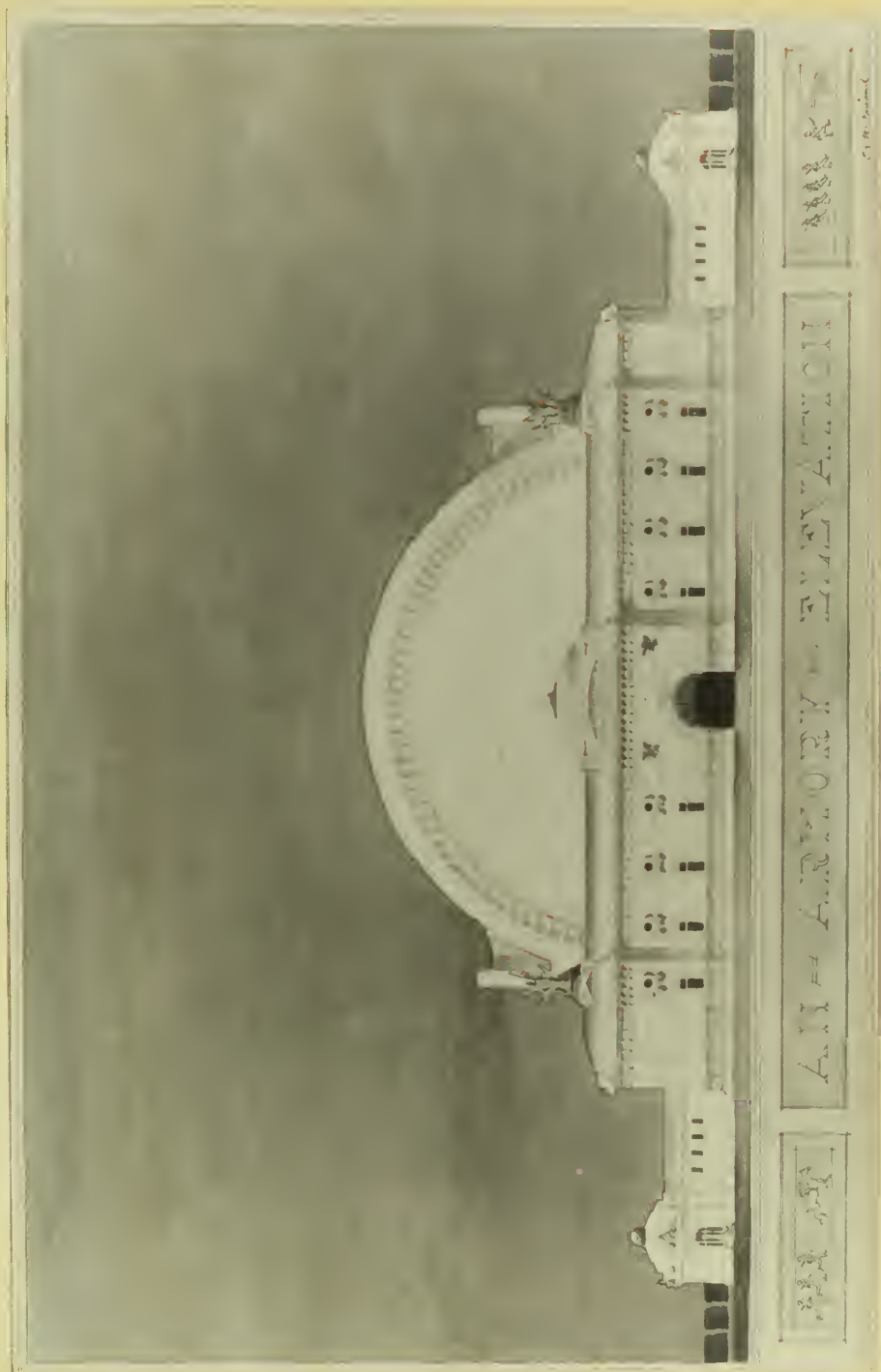
There are but few articles on armories in the library and practically nothing in the Encyclopedias consequently my reference study was limited. However, there is an excellent series of articles in the "Brickbuilder", Volume seventeen (17), pp 120 - 127, 139-147, 155-162. In this series the designing, planning and constructing of armories is comprehensively treated. It is also supplemented by pictures and plans of proposed and existing armories. The several types of armories are carefully explained and excellent descriptions of large regimental armories is given.

Further reference is had in the "Architectual Record", Volume nineteen (19), pp. 259-264. In this article two practical solutions are taken up, namely, The 71st and the 69th Regimental Armories of New York.

In my general study the Ecole Des Beaux-Arts books were invaluable as were also the first and Second volumes of the Concours D'Ecole. There are many problems in these books in which the general features are much the same as they are in armories, and for character of ornamentation they form a veritable storehouse of information. The 'Gymnasium', 'Riding School' and Railway Station problems were especially useful and many of my ideas came from them.



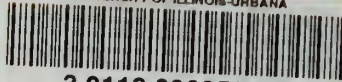
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